


IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : K. Sugimoto et al  
Serial No. 10/530,721  
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For OXYGEN SCAVENGER COMPOSITION  
Art Unit & Examiner : 1796, P. F. Godenschwager



DECLARATION UNDER 37 CFR 1.132

Honorable Commissioner of Patents and Trademarks,  
Washington, D.C. 20231  
Sir:

I, the undersigned Ken Sugimoto do hereby declare :

1. I entered Mitsubishi Gas Chemical Company, Inc., in April 1994, and was then assigned to the Tokyo Factory. I have been engaging in the research and development of oxygen absorber.

2. I am one of the named inventors of the above-identified application, and understand the English language.

3. Purpose of experiment.

The feature of the present invention lies in both the use of a dried calcium silicate granulate-carrier prepared by

granulating and subsequently drying (hereinafter referred to as "the dried calcium silicate carrier of the present invention") and the impregnation of "the dried calcium silicate carrier of the present invention" with an easily oxidizable organic composition in liquid form (hereinafter referred to as "the oxidizable composition of the present invention"). That is, the feature of the present invention lies in the combination of the use of "the dried calcium silicate carrier of the present invention" and the impregnation of "the dried calcium silicate carrier of the present invention" with "the oxidizable composition of the present invention".

Owing to the above combination, the present invention provides the superior reduction of the size of an oxygen absorbing package, i. e. the superior compactness of package, compared with each of the combination outside of the present invention. Namely, the superior compactness is achieved by the combination of the use of "the dried calcium silicate carrier of the present invention" and the impregnation of "the dried calcium silicate carrier of the present invention" with "the oxidizable composition of the present invention", i.e. by the feature of the present invention.

For the purpose of proving the above fact, the following experiments were conducted.

#### 4. The methods of Experiments

In Experiments, a volume per 1g of carrier (hereinafter referred to as "a volume") is measured and shown by photographs.

Hereinafter, Experiment is referred to as "E", and Example 1

of the present Specification is referred to as "Example 1".

(Comparison with regard to a volume for each carrier)

E1-1

A volume was measured for silica gel carrier (Aerosil 200, before granulating) in USP 5,128,060, example 1.

E1-2

A volume was measured for a calcium silicate carrier before granulating in Example 1.

E1-3

A volume was measured for "the dried calcium silicate carrier of the present invention" in Example 1.

(Comparison with regard to a volume in the addition of an oxidizable composition of USP 5,128,060, example 1 to each carrier, wherein an oxidizable composition of USP 5,128,060, example 1, is not homogeneously dissolved.)

E2-1

A volume was measured for the addition of an oxidizable composition (in USP 5,128,060, example 1) to silica gel carrier (Aerosil 200, before granulating) in USP 5,128,060, example 1.

E2-2

A volume was measured for the addition of an oxidizable

composition (in USP 5,128,060, example 1) to a calcium silicate carrier before granulating in Example 1.

E2-3

A volume was measured for the addition of an oxidizable composition (in USP 5,128,060, example 1) to "the dried calcium silicate carrier of the present invention" in Example 1.

(Comparison with regard to a volume in the addition of "the oxidizable composition of the present invention" in Example 1 to each carrier)

E3-1

A volume was measured for the addition of "the oxidizable composition of the present invention" (described in Example 1) to silica gel carrier (Aerosil 200, before granulating) in USP 5,128,060, example 1.

E3-2

A volume was measured for the addition of "the oxidizable composition of the present invention" (described in Example 1) to a calcium silicate carrier before granulating in Example 1.

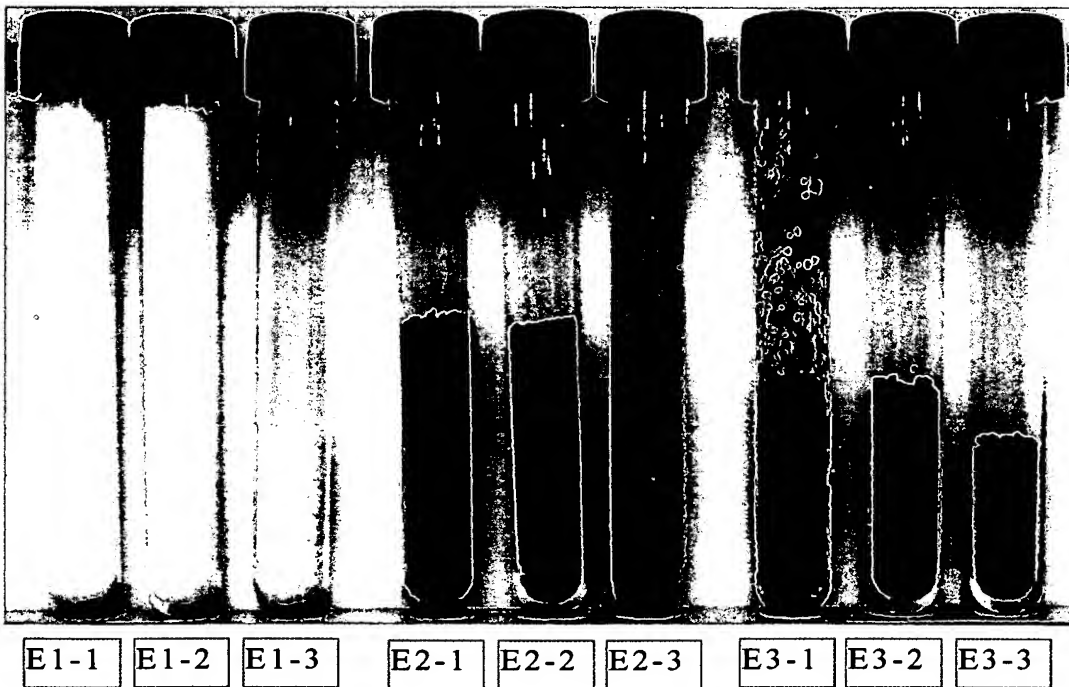
E3-3 (The present invention)

A volume was measured for the impregnation of "the dried calcium silicate carrier of the present invention" in Example 1 with "the oxidizable composition of the present invention" (described in Example 1), i.e. for the addition of "the oxidizable composition of

the present invention" (described in Example 1) to "the dried calcium silicate carrier of the present invention" in Example 1.

5. The results of Experiments

The results of Experiments are shown by photographs in Fig.A.



6. Conclusion

6-1) From both E2-1 and E3-1, the superior compactness is not achieved by treating a carrier with an oxidizable composition (in example 1 of USP 5,128,060) which is not homogeneously dissolved.

6-2) From both E3-1 and E3-2, the superior compactness is not achieved by treating each of silica gel carrier (of USP 5,128,060, example 1) and a calcium silicate carrier before granulating in Example 1 with "the oxidizable composition of the present invention" (described in Example 1).

6-3) From the comparison of E3-2 with E3-3, the superior compactness is achieved by impregnating "the dried calcium silicate carrier of the present invention" with an oxidizable composition which is homogeneously dissolved, i.e. with "the oxidizable composition of the present invention". That is, the superior compactness of the present invention is achieved by impregnating "the dried calcium silicate carrier of the present invention" with "the oxidizable composition of the present invention".

I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Ken Sugimoto  
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Date: April / / , 2008